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Farmers and Forestry.

MR. A. C. GLIDDEN communicates to the *Rural Home* some sound advice to farmers in regard to their wood-lands, and very forcibly points out some of the harmful falacies in regard to forestry, which now too often find a place in periodical farm literature. A great deal of injury has been inflicted upon the material prosperity of this country by irresponsible utterances of writers and speakers upon subjects relating to forestry, and farmers especially have come to look with suspicion upon any advice in regard to the care of woods and wood-lands. Such articles, therefore, as the one we have referred to, in which the facts are plainly and forcibly stated that the planting of trees upon farms will not increase the rain-fall, and that trees, like other products of the soil, must be cut when they reach maturity, cannot be too often written or too carefully read. We cannot, however, endorse Mr. Glidden's statement that there is less and less demand each year for timber and that other materials are replacing it. Statistics show a wonderful increase in the amount of timber consumed in this country, and while the price of poor, half-grown, brash or knotty timber of all sorts, and of inferior fire-wood, has diminished in some parts of the country, good material of certain varieties of lumber have advanced in price in a remarkable manner. This is true especially of the high grades of white pine, of black walnut, hickory, cherry, white ash, and of other choice hard woods. The prices which these woods now command show that they are becoming scarce, and indicate clearly in what direction farmers can increase the value of their properties by a little systematic attention to trees and their cultivation. This is especially true in the case of farmers living in parts of New England and of the Northern and Middle States, where the soil is of a character which makes the cultivation of trees its only profitable employment. Much has been said about the decadence of New England through the abandonment of its farms, but in all New England there is not an acre of good land really suitable for tillage, which, once cultivated, has been allowed to run to waste again. What has so seriously injured New England agriculture, and brought agricultural ruin to its people in many towns, is, that land, which was only fit to produce trees, and which, if managed with the wisdom of true economy, never would have been stripped of its forests, has been cleared. This has often been done at great expense, and then at the end of a few years of unprofitable cultivation, such land has had to be abandoned. And what was true in New England a century ago, later, and in a greater degree even, has been true in northern New York; and to-day the same wasteful and short-sighted system is working incalculable mischief in Michigan and in other western States.

The profitable use of lands in the eastern States which cannot be cultivated to advantage is a problem which the farmers sooner or later must solve. Our agricultural population cannot always continue to go west; the best land west of the Mississippi has been occupied, and not an inconsiderable portion of it has already been greatly injured by thoughtless methods of cultivation. As population increases it must depend more and more upon the soil east of the Mississippi for its support; and the prosperity of the country will be great or small as this soil is used wisely or wastefully.

It is a well established principle in countries where the science and the practice of agriculture are much better understood than they are in the United States, that all land suitable for tillage shall be cultivated and that all land which cannot be profitably tilled shall be covered with trees. No tree is allowed to interfere in the arable land with the best development of its field or garden crop; and the poor soil is planted again as soon as a crop of trees has been taken from it. The boundary between farm and forest is rigidly drawn and strictly guarded.

A German farmer would as soon allow his cattle to range in his wheat fields as in his forests, which often prove the most profitable part of a European estate. In this country the wooded part of the farm is not cared for nor protected in a way to maintain and increase its value; it is always used as a pasture in spite of the well known fact that cattle are fatal to a forest; the trees are either all cleared off at once, without reference to their reproduction, or are so carelessly selected for cutting that the character and composition of the woods are ruined. More care is taken now than formerly to prevent and check fires in the woods, but the damage done to forest property in this country by fire is still an alarming item in the national waste account.

No system of agriculture can be long successful and profitable which ignores the necessity of cultivating trees, and which does not recognize the fact that much land in every country can only be made profitable by means of trees. The precepts which should be often repeated to farmers are not that trees produce rain or that trees are sacred objects, which cannot be cut without offense to man and nature. The lessons they must learn, if they hope to compete with the farmers trained under more enlightened systems of agriculture, are that sterile, rocky, hilly ground cannot long be tilled profitably; and that such land can only be wisely used to produce trees; that the pasturage of domestic animals in woods or on land only suitable for the growth of trees, is an expensive and wasteful system, as unsatisfactory from a pastoral point of view, as it is fatal to the forest; that trees are as much out of place in the strong level lands really suitable to permanent tillage as cattle are out of place in the woods. And they must learn, too, that wood-lands can only be made profitable when the same care is given to the selection of trees with reference to soil and climate as is bestowed upon the selection of grain and other crops, and that the rules which Nature has established for the perpetuation of forests must be studied and obeyed.

The belief in the value of forests is increasing in this country; and there has been a marked change in this respect during the last ten years. It can hardly be expected,

however, that the discussion which this interest has evoked will bring practical results to American farmers until they learn the lesson, which experience alone can teach, that much of their want of success in farming can be traced to the use they have made of the natural conditions with which they have found themselves surrounded.

The Artistic Aspect of Trees. II.—Texture.

ONE thing to be considered when a tree is viewed from the artistic standpoint is its form, which, as we have explained, means its size, its contour, and the character of its surface as determined by the number and disposition of its branches and the consequent massing of its foliage. Another thing to be considered is its texture. By this we mean the character of its masses of foliage as determined by the manner of growth of the lighter spray, and the profusion, shape, disposition and tissue of its leaves. We know what differences of texture—of real or apparent solidity and of surface effect—may be produced, for example, by different methods of weaving silken threads—resulting now in silk, now in gauze, now in satin and again in velvet. Analogous differences nature produces in the weaving of the leafy coverings of her trees; and they play almost a greater part in determining the effect of these trees than even varieties of form. If, for example, a Spruce and a White Pine were exactly the same in contour and in the disposition of their foliage into masses, the longer leaves of the Pine and their arrangement in clusters instead of in rows would give it a wholly different effect because a wholly different texture, while the feathery spray and leafage of a Hemlock would appear quite distinct from either. Even between trees of the same genus, as between different species of Pine, very different textures are produced by variations in the length, the rigidity and the number of their leaves. With deciduous trees the case is the same. An infinite variety of texture is found even among species closely allied with one another, and, when leafless, very similar in effect. Leaves may be large or small, numerous or comparatively few, clustered or scattered, held erect or horizontally, or in a drooping manner; they may have simple outlines, or be conspicuously cut or toothed or lobed; may be thick or thin, stiff or pliant in tissue; may be smooth or rough or shining of surface. A variation in any one characteristic greatly alters the general aspect of the foliage, and as there are so many characteristics which may be combined and recombined afresh, it is not strange that Nature's weaving process should result in innumerable varieties of texture.

Upon these varieties depends the expression of a tree, quite as much as upon varieties of form or varieties of color, unless, indeed, color be so peculiar as to be no longer green and form so eccentric as to be hardly normal—as in the case of fastigiate or weeping trees. A tree is sturdy-looking or graceful chiefly by reason of its form; but such varieties in sturdiness as may be expressed by the words severity, sombreness, majesty, picturesqueness, and such varieties in grace as may be expressed by the words fragility, weakness, delicacy, lightness — these spring in very large part from the texture of its foliage. Small leaves, and especially those which are small and elongated or small and quivering, do more than light color to give a tree the aspect of fragility and a feminine kind of grace, while large and simple leaves almost of themselves imply a masculine air, and large, simple and thick-textured leaves mean a certain majesty even in a plant so small that it is considered a shrub. A small Magnolia, for example, has more dignity than the largest Honey Locust. A Catalpa is more masculine-looking than a Willow of even the largest size; and if we imagine the thin tissue of its leaves exchanged for a thicker, stiffer tissue, we can easily see how its dignity would be still further increased. Even the difference in substance between the foliage of the American and the European Beech—the latter being somewhat stiffer and much glossier—makes a difference in the expression of the two trees; and there is a great contrast in expression, despite much similarity in form and structure, between the White Oak, with its large, round-lobed, dull-surfaced leaves, the Scarlet Oak, with its deeply cut and glossy leaves, and the Willow Oak, with its very small and simply outlined and still glossier leaves. A uniform texture—caused by comparatively small leaves, regularly and thickly distributed over the branches—gives a tree a quiet, restful look, while a broken, spotted texture, caused by sparse, scattered and conspicuously cut leaves (as in the Sycamore), gives it an unquiet look.

All such facts, the "commonplaces of the landscape gardener," should be noted and appraised by every one who aspires to merit the title of a lover of trees. There are none richer in possibilities of pleasure to the cultivated eye even if actual work in the way of planting is not in question—for while forms vary much in trees and colors vary much, textures vary more; among smaller woody plants individuality chiefly depends upon them; and while their variations may seem less striking than those of form and color to the careless observer, they soon grow to be equally conspicuous with the growth of the observing and the appreciating faculties.

When planting is in question, however, they are of great importance. It is almost as bad to group trees inharmoniously with regard to their textures as with regard to their forms. Any artist would know that trees which are quiet and restful in effect may be used in larger masses, and will less conspicuously affect the appearance of their neighbors than those which are spotted and restless of aspect. He would know, too, that it is better to relieve a light and feathery tree against a group of more solid foliage than to reverse the terms of the combination. He would know that the massive, uniform surfaces which make a good background are less pleasing in an isolated specimen standing near the eye. He would know that the great, glossy, leathery leaves of the Evergreen Magnolia are just what is wanted in one spot, just what is not wanted in another, and that while the trembling leaves of the Aspen, or the drooping, fringe-like texture of the Cut-leaved Birch, unfit it for many positions, they make it especially valuable for others. He would know that with every change of position and environment comes a change in the effect of the texture of a tree—that while one sort will look well in full sunlight, another will look better in a shadowed spot, another overhanging a stream, another set close against the walls of a house. An artist feels all this in advance if his profession be landscape gardening; and he feels it at least in intelligent appreciation of existing results if it be some other branch of art, for it is every artist's habit to appraise all he sees for the three properties of form and texture and color. But how few amateur planters feel it in advance; how few lovers of trees judge their own or their neighbors' places with such tests in mind! Even when questions of form and of color are somewhat regarded, questions of texture very seldom are. Yet a cultivated eye is as much distressed by seeing a rigid-looking Pine or a solid Sugar Maple where a feathery Hemlock or a delicate Honey Locust might better stand, as by seeing a Purple Beech where harmony calls for a green one, or a lofty Hickory where good composition demands a low and spreading Dogwood.

The trees in the Central Park, in this city, have not looked as well as they do just now for a number of years. The cool, late spring, the abundant rains of May and the heat of the early summer have all been favorable to a vigorous and healthy tree-growth. Most of the trees, with the exception of the half-dead Norway Spruces, which are covered with red spiders, are unusually free of insect pests. The American Elms have made a remarkable growth, and when planted under favorable conditions, are now objects of great beauty. The American and European Lindens are

very fine, too, and several species are now covered with their fragrant flowers. The two Silver Lindens (*Tilia argentea* and *T. petiolaris*) are striking and attractive in habit and in the pleasing color of their foliage. No foreign trees are better entitled to a place in our plantations than these two European Lindens, of which many fine specimens exist in the Park. The six thousand trees which have been removed from the Park during the past year are not missed. The work, as far as it goes, seems to have been judiciously planned and executed. No one would now suspect that a single tree had been cut; and the Park plantations and the general appearance of the Park would be immensely improved if thirty or forty thousand trees were removed during the present year. They would no more be missed than those already cut are missed. Dying Conifers still disfigure the Park in all directions; everywhere fine trees are in danger of being ruined from overcrowding, while the removal here and there from the plantations of inharmonious elements, as where, for example, trees with light and feathery habit are too closely associated with round-headed, compact trees, would add immensely to their natural and harmonious appearance. There are cases, too, where trees of peculiar rarity or interest should be freed from encroaching neighbors, that their full development and long life may be insured. This is the case with the Asiatic Elm (*Ulmus parviflora*), which stands near the Seventy-second street entrance from Fifth Avenue. This is without doubt the largest and finest specimen of this rare tree in the United States. It is a specimen not only of extraordinary interest, but of great and peculiar beauty. It now forms one of an inharmonious group of three trees. On one side it is being pushed out of shape by a common Tupelo or Sour Gum tree, while its branches on the other side are stunted by a common European Maple. It is hard to imagine a more incongruous or less pleasing combination of trees; and it is clearly for the interest of the Park and of the public that the Maple and the Tupelo should be cut away and that every opportunity should be given to the Elm to spread its branches out freely in all directions. There are hundreds of just such cases all over the Park where interesting and valuable trees are being ruined in this way; but in the particular case to which we venture to call the attention of the Park authorities, the prominent position of this beautiful tree and the great interest which it excites among all persons who know it, seem to warrant us in urging prompt action to insure it from further disfigurement.

Palms in Central Florida.

PROBABLY in all the United States there is not such a collection of Palms growing in the open ground as that of Mr. E. H. Hart at Federal Point, Putnam Co., in this State. Dr. Richardson, of New Orleans, has a good collection of hardy Palms growing in the open ground, but the extremes of cold experienced there are much greater than those of Mr. Hart's location, and only the most hardy species can be safely planted out.

The approach to Mr. Hart's residence is through the Orange grove, famous throughout the South for the number and excellence of the varieties of fruit grown, and containing between the Orange trees hundreds of the choicest exotic fruit trees, flowering and ornamental shrubs and Palms in the greatest variety. It is of the Palms more especially that I now wish to speak.

Overlooking masses of *Magnolia fuscata, Rhincospermum jasminoides, Olea fragrans, Azaleas, Tabernæmontana, Allamanda*, and other beautiful plants, one's attention is first attracted by a group of different species of the genus *Phœnix* in front of the house. The tallest of these is a magnificent specimen of *P. sylvestris*, the wild Date of India, with a trunk some twelve feet in height and a total height of twenty feet. (It must be remembered that none of Mr. Hart's Palms have been planted out more than fifteen years, and most of them during the last ten years, so that in many species stem development has not even begun.) This beautiful tree had bloomed, and a spike of fruit was developing at the time of the extreme cold of 1886; this, of course, was destroyed, and no flowers have appeared since. Close by is a *Phœnix Canariensis*, with a short trunk, and still more elegant leaves than those of *P. sylvestris*; the leaflets are set closer together, making a very compact and beautiful leaf. Another specimen, though smaller, is *Phœnix vinifera*, a more tender species, which suffered badly during the winter of 1886, but is still a very handsome and thrifty plant. Among the Orange trees are two elegant plants of *Phœnix rupicola*, a most graceful species. The handsome recurved leaves are a rich golden-green color rarely seen in any Palm. These plants are about five feet in height, this species never forming a tall trunk. There are other fine specimens of the different species of *Phœnix* in different parts of the grounds, especially in what was once the garden, but is now a thicket of Palms. We noted also *Phœnix tenuis, P. pumila, P. farinifera, P. Senegalensis, P. spinosa, P. reclinata, P. dactylifera* (the common Date Palm) and others. In striking comparison with the vigorous, healthy and remarkable growth of the various species of *Phœnix*, we remember a tiny plant of *Copernicia macroglossa*, ten years old, and with one little leaf, not more than an inch high.

Directly in front of the house is a clump of the slender little Cane Palm (*Rhapis flabelliformis*). The stems of this miniature Palm are about three-fourths of an inch in diameter and two or three feet high. It suckers freely like a Bamboo, and the clump now contains fifty or more distinct stems. This plant was little injured by the cold of 1886, and is ordinarily quite hardy.

The neat, trim little specimens of *Chamærops* throughout the grounds are very beautiful. Among these are *C. spinosa, C. Humboldtii, C. arborea, C. elegans, C. tomentosa, C. Martiana, C. Fortunei, C. humilis, C. Sinensis, C. farinosa, C. humilis robusta, C. robusta, C. excelsa, C. excelsa macrocarpa*, our native *C. hystrix* (or *Rhapidophyllum*) and others. One of the largest of these is *C. robusta*, which has reached a height of six feet, with a trunk three feet high. Many of them have beautiful little silvery leaves and small slender trunks from three to five inches in diameter. All are perfectly hardy in this latitude, so far as cold weather is concerned, but *C. humilis* and one or two others do not, while small, support our summer sun very well. *C. excelsa* has rich green leaves, without the silvery tint so often seen in the other species.

Among other Fan-leaved Palms is a splendid collection of *Sabals*. These are usually hardy; even the species whose native home is in the tropics. One magnificent specimen of *S. umbraculifera* has attained a height of about fifteen feet, with over six feet of trunk. It has a beautiful spreading crown of leaves resembling those of our native *S. Palmetto*, though with longer and stouter petioles, and thicker, firmer texture. A specimen of *S. dealbata* is about six feet in height. This has produced seed on a spike ten feet high. There is a fruiting specimen of *S. longipedunculata*, with the flower-spikes extending far above the leaves after the manner of *Sabal Adansonii*. A fine specimen of *Sabal Mocini*, from the highlands of Mexico, has proved somewhat more tender than the native Cabbage Palmetto, the foliage having suffered in 1886. There are in this collection also *Sabal Havanensis, S. Ghiesbrechtii* and *S. cærulescens*, all in good specimen plants.

Mr. Hart has made a great success with *Washingtonia robusta*, one of the California Fan-Palms, of which he has several fine trees. The largest is fifteen feet in height, with about six feet of trunk; it throws out a new leaf every two weeks, and is indeed a beautiful specimen; the red wax-like spines and richly-tinted leaves and petioles make it one of the handsomest and most desirable Fan-Palms I have ever seen. *Washingtonia filifera* (*Brahea* or *Pritchardia filamentosa*), the southern Californian Palm, is very distinct. Although Mr. Hart has beautiful specimens, they are deficient in vigor as compared with those of *W. robusta*. *Brahea edulis* and *Brahea glauca* are represented in smaller specimens.

Perhaps the most elegant Palm in the whole collection is a ten-year-old *Diplothemium campestre*. It is not more than four or five feet in height, but the beautiful plume-like leaves, silvery on the under side, and the leaflets delicately curled like those of an ostrich feather, make up in beauty for want of size.

The genus *Cocos* is well represented in the more hardy species; a specimen of the quick-growing and handsome *C. flexuosa* is twelve feet high; the most hardy species, perhaps, of all pinnate-leaved Palms, *C. australis* and *C. campestris*, are represented by many thrifty young specimens. *C. Yatai, C. insignis, C. Romanzoffiana, C. Normanbyana, C. Gaertneri* and *C. Blumenavia* are represented in small specimens; *C. plumosa*, a species with long, drooping, light-green leaves, appears in a good-sized specimen.

I noticed a small plant of *Livistona altissima*, another of *L. Jenkinsiana*, and a splendid specimen of *L. Hoogendorpii* four or five feet high. In front of the house is a magnificent

specimen of *L. Chinensis*, about eight feet high, that has formed a considerable trunk already. Near by is an *Acrocomia selerocarpa* about four feet high, raised from a seed planted eight years ago, and which did not germinate for four or five years.

A *Jubæa spectabilis*, twelve years old and not over a foot high, though apparently healthy, seems to warrant the assertion that in Chili, its native country, this Palm is one hundred years old before it produces flowers and seed.

Areca rubra, *A. sapida* and other species of this genus are grown with the protection of a shelter made of slats placed several inches apart, in order to afford partial shade and protection from frost.

A good specimen of *Oreodoxa regia*, the "Royal Palm" of southern Florida and the West Indies, has been protected through several severe cold snaps by headless and bottomless barrels slipped down over the leaves and around the trunk, and then filled up with earth.

Many other Palms are represented in small specimens, but I have noticed most of those that have attained any size.

Cycads, too, are well represented. First and foremost there is a noble specimen of *Cycas revoluta*, about fifteen years old, and in the healthiest possible condition. Scattered in various places throughout the grove and grounds are at least as many as a hundred more small specimens of the plant. *Zamia integrifolia*, our Florida species, is there, as well as the rarest exotic species, like *Macrozamia cylindrica*, *M. Dennisonii*, *Dioon edule*, *Cycas circinalis*, *Macrozamia terrestris*, etc.

In a few years the "Palms of Federal Point" will be well worth a long journey to see.

Manatee, Fla. *P. W. Reasoner.*

Foreign Correspondence.

London Letter.

IN my last letter I spoke about the many beautiful American trees and shrubs that were now making our open-air gardens so gay with bloom. I ought to have finished the list by recounting the charms of the numerous Oriental plants which enrich English gardens. Chinese and Japanese trees, though not so hardy and so suitable for our climate as American, are, nevertheless, invaluable, and if some of them are killed in a severe winter, the choice is so great that we can afford to leave aside the tender things in making a selection. Just past is the glorious Yulan (*Magnolia conspicua*), which has been the attraction of many a garden, and this year, owing to the lateness of the season, it has been more beautiful than ever, having escaped the late frosts and cold winds. Of the several forms of it there is none to equal in purity the snow-white form, whose flowers have not the faintest trace of color. A large mass of this was exhibited at the Royal Horticultural Society a short time ago, and though surrounded by the rarest and showiest Orchids and other plants, every one who saw them was captivated by their chaste beauty. Quite recently I saw at Mr. Anthony Waterer's nursery at Woking a large bush of another white eastern Magnolia (*M. stellata* or *M. Halleana*, as it is also called). It was standing out in the open entirely without shelter, and every bloom was as pure as if grown under glass. These two Magnolias are among the loveliest trees one can possibly have in a garden. The *Exochorda grandiflora*, otherwise called *Spiræa grandiflora*, from north China, is a shrub that is rapidly becoming popular with us since it has proved to be quite hardy. At one time it was always planted against a wall, but now one sees great bushes of it eight or ten feet high and as much through. The snow-white flowers, an inch or more across hang thickly wreathed on every branch. and, in contrast to the tender green foliage, are delightful. The Japanese Apples have been exceptionally fine this season. I do not know if they are much planted in America, but here there is such a growing demand for them that nurserymen cannot keep apace with the supply. The best of all is undoubtedly *Pyrus* (Malus) *floribunda*, and one of the finest of all flowering trees. The profusion of its flowers and buds renders it most striking at this season, especially before the deep crimson buds expand into shades of delicate pinks. I plant this beautiful tree wherever I can, knowing well how hardy it is, and how rapidly it makes a picturesque, though small, tree. In old gardens like Kew, the Chinese *P. spectabilis*, a very old introduction, has been very attractive in bloom, but it is not nearly so valuable for ornamental planting as *P. floribunda*, neither are the varieties *Toringo*, *Kaido*, *Riversi* and *flore pleno*, which I put in the same category as the Siberian *P. baccata*, which has the additional value of its cheerful crop of autumn fruit. *Pyrus Maulei* is one of my chief favorites among dwarf shrubs. Its flower color, a sort of orange red, is incomparable, and just now, when this peculiar tint is in harmony with the pale leaf green, the shrub is charming. It is admirable for planting on the margin of a group of our old friend, *Cydonia Japonica*, on a lawn. By the way, there are some splendid forms of the Cydonia now, but after seeing a full bloom review of them at the Knap Hill nursery, I think that there is none to compare in richness or brilliancy of color with the sort called cardinalis, whose flowers are big, of fine shape and of a glowing crimson. Then for purity, the variety nivalis is unmatchable, being far better than the so-called white (alba), which has traces of color. All the other sorts, so far as I can see, range between cardinalis and nivalis, and the only one I should select besides them would be rosea.

The Japanese Snow-ball bush (*Viburnum plicatum*) deserves all the praise you see written of it, for it is unsurpassable in its way. I saw it the other day in the Coombe Wood nurseries flowering profusely in an exposed border, every bush being a mass of white. The "balls" of flowers are larger than those of the common *V. Opulus sterilis*, and whiter, while the plant is dwarfer, and particularly suitable for a select shrubbery. I have recently seen the double *Wistaria sinensis*, and do not think much of it compared with the glorious single kind, which for the last few weeks has met one at every turn on mansion, cottage and bower, clad with a profusion of mauve bloom. The double kind is not so showy, because the flowers seem doubtful about opening themselves widely, and though when fully expanded they may last longer, in good condition, than the single, I do not think that that point compensates for the lack of profuse bloom, brightness and elegant growth. When I was in Belgium recently I heard some nurserymen discussing the merits of a new variety of Wistaria which is "coming out." It is said to be wonderful, far eclipsing the long-spiked *W. multijuga* and other sorts, its racemes being a yard long. I shall watch its advent with interest.

London, June 8th. *W. Goldring.*

New or Little Known Plants.

Philadelphus Coulteri.

PROBABLY no flowering shrub is more popular with common folk, after the Lilac, than the "Seringa," especially the European form (*Philadelphus coronarius*), with creamy, fragrant flowers. Our own species, with larger, pure white flowers, but much less fragrant (*P. grandiflorus* and *P. inodorus*, with their varieties), are also favorites, and very common in yards and shrubberies. Others are scarcely known. The Californian *P. Gordonianus* is sometimes to be found in gardens, and it has large flowers and is very handsome in cultivation. The very similar *P. Lewisii*, which ranges from Oregon to northwestern Montana, is a free bloomer, and probably its equal in every way. The two species of western Texas and New Mexico, *P. microphyllus* and *P. serpyllifolius*, are dwarf in habit and have much smaller leaves and flowers.

The species of which a figure is here given, is from northern Mexico, where it was discovered by Coulter many years ago, and again by Professor Sargent in 1887 on the foot-hills of the mountains near Monterey. It equals our common species in height, with slender, drooping branches, and leaves which have a dense, white pubescence cover-

ing the under surface. The flowers are mostly solitary along the branches, an inch broad or more, and very fragrant.

The relationship of the genus Philadelphus is interesting enough to be worth mention. With Hydrangea and Deutzia it belongs to a saxifragaceous tribe (*Hydrangæ*) which is limited to the northern temperate zone and mainly to eastern Asia and eastern North America. Philadelphus is exceptional in having one species in Europe and two upon the Pacific coast, in addition to the eight more eastern species and the two of eastern Asia. Hydrangea, on the other hand, has but three species in eastern America and thirty or more Asiatic, while Deutzia is wholly Asiatic. The remaining genera are all very small, of a single species, or rarely two in each. Of these we have Decumaria in the Atlantic States, Fendlera and Jamesia in the Rocky Mountains, Whipplea in Utah and California, and Carpenteria, also Californian. One genus is found in the Sandwich Islands, and the five others all belong to eastern Asia. It is a curious fact that the *Itea Virginica* is our sole representative, and almost the only representative on this Continent, of another similar and as large a tribe whose home is in the southern hemisphere, scattered likewise mostly in small genera through western South America, the islands of the South Pacific and Indian Oceans, Australia and South Africa. But Itea is the only genus of this tribe that is represented in eastern Asia also, and our own species finds its nearest relative in one peculiar species of Japan.

S. W.

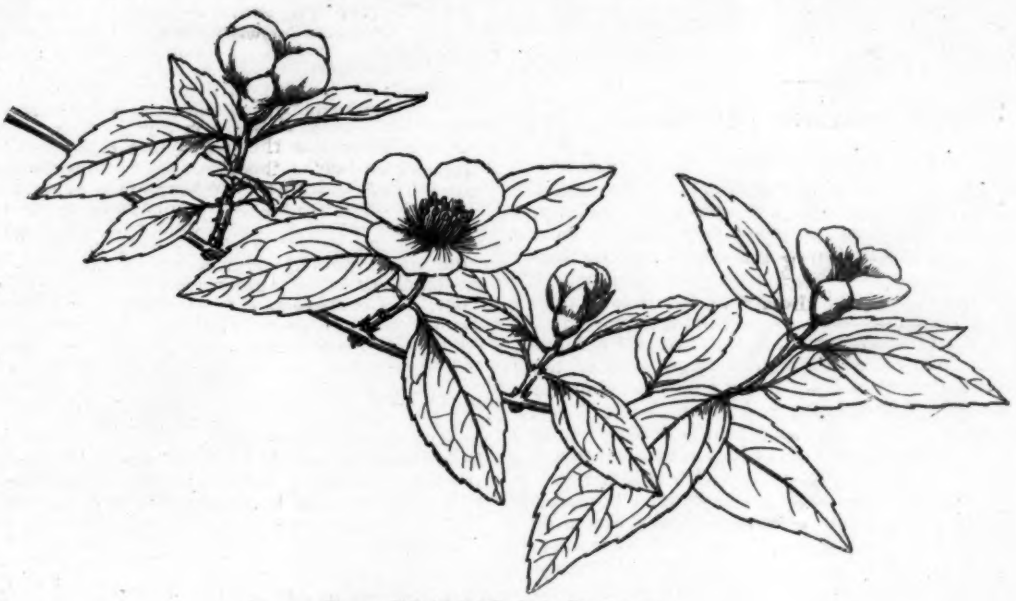

Fig. 40.—Philadelphus Coulteri.—See page 232.

Plant Notes.

Novelties at Baden-Baden.

A PART of the terrace-like rough walls in my garden is clothed in blue, violet and crimson-lake by the various varieties of Aubrietia, the crimson-lake-colored *A. Leichtlinii* being very conspicuous. *Iris albicans*, a native of Cyprus, is in the way of *I. Germanica*, but pure white, very rich, and deliciously sweet scented. *Delphinium Brunonis* is a dwarf, very large flowered Himalayan species; the flowers are grayish blue, very downy, and strongly musk-scented. *Eremurus aurantiacus* is one of the showiest species. The scapes are some three feet in height, the spikes of the thickly set flowers take one and a half to two feet more and the color is brilliant golden yellow. We are accustomed to see *Papaver orientale* in several shades of scarlet and blood red, but there is now a sport in rosy lilac. *Lathyrus Sibthorpi* is not a new plant, but it is seldom seen and it deserves a place in a choice collection. Its flowers are of a uniform, bright magenta-red and appear in great numbers. *Gundelia Tourneforti* is a rare Persian plant, not showy, but a great beauty; the thistle-like leaves are deeply cut out, rather spiny, of a bright green color with conspicuous white nerves; the flowers are chocolate and yellow, a very curious combination, but most striking. *Lindelofia longifolia* is a showy herb, sending up a dozen stems to a height of two feet, each clothed by numerous lance-shaped leaves and terminated by a cluster of ultramarine blue, Forget-me-not-shaped flowers. *Pulmonaria Daurica* is a dwarf alpine; a tuft of lance-shaped leaves mounted by panicles of pretty bright blue pendent flowers. *Polygonum sphærostachyum*, a showy plant from Sikkim, continuously puts forth from amidst bright green, longish-lanceolate leaves, its charming rosy crimson flowers. *Armeria undulata* has pure white heads borne on long undulate stems. *Gladiolus vinulus*, grown in a frame, is a very pretty small-flowered species which will be much valued for bouquets. It is creamy white with crimson feathers.

Max Leichtlin.

Schizophragma hydrangeoides.—This interesting Japanese climbing plant is now flowering finely in the garden of Mr. S. B. Parsons, at Flushing, Long Island. It must not be confounded with the "Climbing Hydrangea" sometimes seen in American gardens, which, although distributed under the name of *Schizophragma* a few years ago, is an entirely different plant (*Hydrangea radicans*), with dark green, finely serrate leaves, and broad, flat-topped inflorescence, the outer or radiating flowers, as in other Hydrangeas, with three or four enlarged, petaloid sepals. *Schizophragma* has much paler and more deeply heart-shaped leaves, with reddish veins and petioles, and a much deeper and more prominent serration. The flowers are arranged in a loose spreading, many-branched corymb six or eight inches across, each branch terminated by a pure white petaloid, oval leaf, nearly an inch long, corresponding to the petaloid calyx lobes of the ray-flowers in Hydrangea, but with only a single division developed, and with no other trace of the flower remaining. The small, perfect flowers are greenish yellow, and, although produced in great profusion, are not showy, the beauty of the plant consisting in its very handsome foliage, and conspicuous petaloid calyx lobes.

Schizophragma is found in the elevated valleys of the mountains of Japan, where it climbs over rocks and the trunks of trees to a height of eight or ten feet. The Japanese name, *Tsuru demari*, signifies the Climbing Snowball, a name which describes the general appearance of the plant. It is well figured by Siebold and Zuccarini in the "*Flora of Japan*," *t.* 26, while a figure, *Hydrangea radicans*, will be found in the *Botanical Magazine*, *t.* 6788 (under *H. petiolaris*). These two climbers are important additions to the small number of plants hardy here, capable, like the English Ivy, of attaching themselves firmly to the trunks of trees by adventitious roots developed on the stem and branches. *S.*

Benthamia Japonica is probably flowering for the first time in the United States in the Parsons nursery, at Flushing, Long Island. It may be described as a dwarf Flowering Dogwood, in which the flowers are not produced until after the leaves have attained their full size. It is a compact shrub, six or eight feet high, with bright green, elliptical leaves and compact heads of small yellow flowers, surrounded by four pure white, satiny, petaloid bracts as long, but much narrower, and more sharply pointed than those of the Flowering Dogwood. This is a very interesting and important addition to the list of showy-flowering shrubs, hardy in the Northern States, where it seems destined to become a conspicuous garden ornament. It is one of Mr. Hogg's introductions. *S.*

The Cherokee Rose.

IN extra-tropical regions with temperate climates it is the injurious weeds of foreign countries and not the useful or ornamental plants which, as a rule, become naturalized. A hundred old-world weeds, at least, injurious to our crops, are now as much established, and in some instances more widely distributed, in the United States, than in their own homes, while of plants useful to man there are not probably half a dozen foreign plants naturalized in this country. The most conspicuous examples of useful plants now thoroughly established in the United States are the Barberry on the New England coast, the so-called Japanese Clover in the south, the Oat in California, the Wild Orange in Florida, and the subject of our illustration on page 235, the Cherokee Rose (*Rosa lævigata*), now thoroughly naturalized and widely distributed through a large part of the south Atlantic and Gulf States. It is a common plant in many districts of southern China and Japan, but it is not recorded how the Cherokee Rose first reached America, in whose garden it was first planted, or how it escaped to the woods and took such a hold upon the soil that it acquired the name of the tribe of Indians which once occupied much of the upper country in what are now the States of Georgia and the Carolinas. Michaux, the French botanist, found it in Georgia late in the last century so thoroughly naturalized that he mistook it for a native plant and first published it in his North American Flora many years before it was known as a Chinese plant at all. Elliott speaks of it in his "*Sketch of the Botany of South Carolina and Georgia*," published in 1821, as having been "cultivated in the gardens in Georgia for upwards of 40 years, under the name of the Cherokee Rose." It is a shrub with long flexible branches which may be trained to a height of 15 or 20 feet, but which if left unsupported fall to the ground and take root. This habit, its vigorous, rampant growth, and the stout, sharp, incurved prickles with which its branches are armed, admirably adapt the Cherokee Rose to form high hedges, which, if left unpruned, soon form thickets twenty or thirty feet through, into which no animal will penetrate. There are hundreds of miles of such hedges lining the highways in different parts of the Southern States, and nowhere are they more beautiful and luxuriant than in that part of western Louisiana watered by the Achafalaya and the Têche. When in bloom the Cherokee Rose is an object of much beauty, its pure white, single, fragrant flowers, two or three inches across when expanded, contrasting charmingly with the dark, shining, evergreen foliage. There are few floral displays in this country more delightful than a long vista bordered with great masses of this graceful plant in full flower. The Cherokee Rose is an excellent subject to train over the roof of a cool green-house at the north, where, if it can be planted out in a border, it soon attains a large size and produces every year during the month of February an abundant crop of flowers. Our illustration is from a photograph taken recently in Florida, by Dr. R. H. Lamborn; it shows a hedge of this plant from which the long pendulous branches have been removed in order to keep it within reasonable bounds.

Cultural Department.

Canterbury Bells.

OF these grand, old-fashioned flowers we now (middle of June) have a very fine display—some 150 plants in full bloom in one belt. Although single plants are very beautiful, their excellent effect is attained only when a large number of them are grown and massed together, like Pæonies, Poppies and Coreopsis. They come into bloom when herbaceous Pæonies and Oriental Poppies have passed their best, and before the gorgeous Kœmpfer's Irises begin to flower, and they are in perfection at the same time as June Roses, Deutzias and the large flowered Philadelphus.

Canterbury Bells are true biennials and of the easiest possible cultivation. We have never succeeded in flowering them the first year from seed, and although they will sometimes live over for another year after blooming, in the same way as Foxgloves and Hollyhocks, they never are satisfactory when so retained; far better treat them strictly as biennials. But they are not quite hardy, and this alone is the reason why they are so seldom seen or grown in our gardens. We sow the seed in flats (shallow seed boxes) in a cold-frame in June or July, and soon after the seedlings appear they are pricked off into other flats, and after a few weeks planted out six or eight inches apart each way into frames or a narrow bed in the open garden. Sowing in flats is a matter of convenience rather than necessity, as the seeds are very small, and if sown in the open garden warm sunshine would be likely to burn them, or heavy rains wash them out or cover them too deep. The cold-frame is also only a convenience in the same way, and by shading the sashes and ventilating at the same time, we have in it an excellent place for starting seeds in summer. It is not well to sow the seeds in spring; if sown early the plants grow into large masses before summer is over and are very apt to rot off in winter. Many years of practical observation convince us that midsummer is soon enough to sow Canterbury Bells.

Before hard frost sets in lift the plants and transplant them into cold-frames, in the same way as is done with Pansies, Violets or Lettuces, and, according to the size of the plants, some six to eight inches apart. If the plants are vigorous and leafy, shorten back the leaves a good deal so as to keep the plants from touching each other; when too close they gather and hold moisture on the surface of the leaves; and then the crowns rot off in winter. But avoid coddling or keeping them warm; just cover the glass with a few inches of straw and ventilate in bright or warm weather. But keep a strict watch on the frames for field mice. These little and extremely destructive rodents gather to the frames in winter and cut the plants all to pieces. A few Peas or grains of cereals, dusted over slightly with Paris green and buried half an inch deep in the ground, is a very good bait for the mice.

Towards spring expose the plants quite freely in order to render them hardy and retard their leaf growth, and as soon as the ground out-of-doors is free from frost and mellow lift and transplant them to the garden where it is desired to have them bloom. In lifting cut the ground between the plants lengthwise and crosswise, and in this way you can lift them with large unbroken balls.

There are many kinds of Canterbury Bells (*Campanula Medium*), single and double; also the cup-and-saucer forms known as calycanthema; and in color they range from pure white to rose and blue, but the shades of purple, violet and blue prevail. And while all are beautiful, the double ones are most esteemed, and of the doubles the *calycanthema* varieties are preferred. The finest variety we have ever grown is calycanthema rosea, and the next most beautiful is *C.* Mauve Beauty. But it is desirable to have a variety of colors, and from a packet of mixed seed of each of the above sections—namely, single, double and calycanthema—there will be a great variety of colors, but there should be a special packet of calycanthema rosea seed.

Canterbury Bells are not only most excellent plants for garden use, but as cut flowers for house decoration, where, as in the case of halls, large masses are required, we have nothing better, and they last well when cut. *W. F.*

Glen Cove, N. Y.

Myosotis dissitiflora.—Although this beautiful perennial Forget-me-Not does not come in early enough for spring bedding, owing to the loss of the previous year's flowering growth during winter, yet it does excellent service in brightening up the garden during the interval between spring and summer bedding. For the front line of herbaceous borders, and round and about shrubberies, as an edging, it is charming. It will bloom all through the summer, but later its brightness becomes somewhat obscured by the blaze of summer bedding plants. It differs from *M. alpestris*, which is really an annual —having the inflorescence proceed directly from the root-stock—by flowering, and rooting all along its decumbent stems, any of which quickly form a plant when separated.

The Cherokee Rose.—See page 234.

Rockets.—The old double white and purple varieties are now in bloom. They are among the handsomest of hardy plants, and should be generally grown. The flowering stems resemble, and equal in beauty, those of a well-formed Brompton Stock, and remain in bloom much longer. They require only a good loam—if heavy so much the better—and a little shade. They are propagated by cutting back any flowering stems which may start towards the fall, in order to encourage the development of offsets, which should be removed and kept over winter in a cold-frame for safety.

Wellesley, June 16th. *T. D. Hatfield.*

Hardy Lady Slippers.—One of the principal features of the out-door garden just now is several large patches of the yellow species of this interesting family. Some of these clumps are bearing seventy to eighty flowers. *Cypripedium pubescens*, the larger variety, does best with us planted in a friable loam in partly shaded ravines. On the other hand, *C. parviflorum*, the smaller variety, likes a good deal of peat, being a bog-loving kind, but disliking too much shade. One fine patch planted by the side of a gravel path has outgrown its bounds, and where it has encroached on the walk the flowers are smaller and lose the dark brown of the petals. A few plants of *C. acaule* are in flower, planted among Kalmias, but with this species we are not all successful, though it is very plentiful in the woods about 200 yards away. The large and handsome *C. spectabile* will soon be in flower. This kind delights in deep beds of swamp peat and moss, in light situations. This, as well as the yellow kind, make excellent plants for pot culture, can be forced readily, and will remain in good condition for many years with simply an annual top-dressing of moss and peat. *F. G.*

Orchid Notes.

Thunia alba.—As more than half a century has elapsed since this Orchid was introduced, and as it is easily propagated, it is surprising that more of it is not grown. We have a large batch in flower now, and we find it exceedingly useful for cut flowers and for decoration, both for the conservatory and for the dwelling house. They can be had in flower within two months from starting, and to make a good plant for general decoration, eight or ten bulbs should be put into an eight-inch pot. The bulbs or stems usually grow from two to four feet in height, and terminate in a drooping raceme of pure white flowers, beautifully penciled with purple and lilac. These will last in perfection from two to three weeks. To grow this species well it should be accorded very liberal treatment, potting in well drained pots in a mixture of equal parts loam, peat and moss with a good sprinkling of sand. Little water should be given until the growths are a few inches high, after which they may be kept very wet; a good top dressing of moss and cow manure will be beneficial, as well as liquid manure applied three times a week. The warmest house should be given them, and the plants should be constantly syringed overhead. As soon as growths are finished, the plants should be ripened in a cool, airy house, giving abundance of water until all the leaves are dropped; after this scarcely any water need be given except to keep the stems from shriveling. All the roots die every winter, consequently they will need to be shaken clean out, the old roots cut off and potted in fresh soil every spring, as soon as new growths appear. To propagate this species the stems, in the spring, should be cut in lengths of four to five inches and inserted in pots of equal parts sand and leaf mould, and put in a close frame until the buds are well advanced, when they may be treated the same as the older plants. There are three to four other species belonging to the genus,

but differing from this one only in the markings and color of flower, and requiring the same treatment. They are natives of Burmah.

Phalænopsis Parishii.—An exceedingly choice little Orchid with thick, fleshy roots and distichous tufts of pale green leathery leaves about four inches long. The racemes, which are large for the size of the plant, bear eight to ten flowers, less than an inch across, sepals and petals pure white, lip three-lobed, the lateral ones small, yellow, with purple blotches, the front one broad, flat, and of deep amethyst purple. It is an exceedingly free blooming kind; the smallest piece will produce at least two racemes, and the charming contrast of color, in the dense mass of flowers, renders it very attractive. It is a native of Búrmah, and grows best on block or raft of wood. It should at no season be allowed to be dry, and delights in abundance of heat and moisture in the growing season.

Miltonia Phalænopsis.—This is the smallest of the half dozen species popularly known as Odontoglossums, but now referred to Miltonia. It has oblong, compressed bulbs, bearing narrow, grass-like leaves about a foot long. Strong bulbs will produce three to four spikes, each bearing three to four flowers, pure white, the broad pandurate lip having two large broken blotches of purplish crimson. This species is a native of Guatemala, and is thriving with us under the treatment recommended for *M. vexillarium*.

Phalænopsis speciosa Imperatrice is a distinct variety of a very showy species, producing panicles of bright rosy purple flowers, excepting a white tuft of hairs on the apex of the lip. The back of the flowers is faintly striped with rose. Another choice and rare variety is Christyana, in which the purplish flowers are banded with pure white. These, with the type, are native of the Andaman Isles, and therefore need the warmest house, and should at no time be allowed to become dry. Sphagnum moss, with a few lumps of fibrous peat, is the best potting material.

Dendrobium Dearei is one of the best of recent additions to this large genus. The racemes, usually eight to ten flowered, proceed from opposite the axils of the leaves or from the old leafless bulbs, in profusion, bearing comparatively large, pure white flowers, relieved with just a dash of pale green on base of lip. These will remain in perfection fully four months, and apparently without injury to the plant. The old bulbs, though adding nothing to the beauty of the plant, should be allowed to remain on, as they will continue to give racemes for many years. The cultural requirements of this species has not been generally mastered, as good examples are the exception. It does well in the warmest house the whole year, being saturated with water during growth, and at no time being very dry. It requires little potting material.

Kenwood, N. Y. *F. Goldring.*

Notes from the Arnold Arboretum.

Ledum latifolium, the Labrador Tea, is now covered with its handsome heads of white flowers. It is a dwarf evergreen shrub, which grows in cultivation to a height of one or two feet, with erect, very leafy stems, and oblong, linear leaves with revolute margins and covered on the under side with ferruginous wool. An inhabitant of cold swamps, it is a peat-loving plant, and a good subject for the margins of Rhododendron beds. Although a plant from the far north, being found from Labrador to Puget Sound, like most broad-leaved evergreens, it is the better in this climate for a slight winter covering.

The Sand Myrtle (*Leiophyllum buxifolium*) is also in flower. It is a handsome dwarf evergreen shrub, only a few inches high, very common in sandy Pine-barrens from New Jersey to Florida. It has minute, oblong, veinless leaves, and profuse white or rose-colored flowers in terminal umbel-like corymbs, made conspicuous by the brown or purple anthers. The variety (var. *prostratum*) which is found only on the summits of the Roan and other high Carolina mountains, where it forms dense wide carpets, flowers here nearly two weeks earlier. It is hardly more than an inch high and has deeper green leaves than the New Jersey plant.

Among all the Mountain Ashes, American, European and Japanese, none is so handsome as *Pyrus sambucifolia*, the most northern of the American species and only just reaching the eastern United States on the highest of the New England mountains and the shores of Lake Superior. The oblong-oval divisions of the leaves are much broader than in the other species; the petioles and peduncles are a brighter red and the fruit is much larger and higher colored. It makes a fine tree in cultivation, especially far north; and in the gardens of Minnesota and Wisconsin, where it is often seen and where it soon grows into fine large specimens, it is, in autumn, an object of surprising beauty. It is rarely met with at the east, however, although well suited to the climate of New England and New York; and its more general cultivation is worth the attention of nurserymen. It is in every way the superior of the European Mountain Ash, which is the species found in American nurseries.

Daphne alpina, a native of the European Alps, is very handsome when covered with its pure white, abundant, fragrant, sessile flowers. It is a dwarf shrub, not more than a foot high here, with deciduous leaves. It requires a slight winter protection to insure an abundant crop of flowers, as the plant is not entirely hardy here.

Fendlera rupicola is an interesting plant of the Saxifrage family, related to Deutzia, and a native of our Texano-New Mexican region, being found growing sparingly in the rocky crevices of river bluffs from the Guadaloupe to New Mexico. It is a low shrub, two to four feet high, with small, opposite, entire, sub-sessile leaves, and large white, showy flowers with long, conspicuous stamens, solitary on the extremities of stout lateral branches. *Fendlera* is perfectly hardy here, and a real acquisition to the lis of dwarf garden shrubs which can be grown in this climate.

Among Barberries with racemose flowers of the *vulgaris* section are several species or varieties in the collection worth more general cultivation. *Berberis Canadensis* is the only native representative of the family in eastern America. It is a graceful and very hardy shrub, a native of the mountains of Virginia and Carolina. It is in every way a smaller plant than *B. vulgaris*, which it otherwise closely resembles, except that the teeth of the leaves are less bristly pointed and the racemes are fewer flowered; the berries are oval, while in the European plant they are oblong. It is a perfectly hardy plant, which will grow wherever the common Barberry will thrive.

Berberis Sinensis, a native of northern China, is one of the most ornamental of the whole genus, especially when the fruit is ripe. It is a graceful plant, four or five feet high, with long, slender, flexuous branches, quite loaded at this season of the year with slender racemes of small yellow flowers. The leaves are small, spathulate or linear obovate and quite entire, or on young plants with scattered teeth; the fruit is the largest and most brilliant in color produced by any Barberry in the collection, while, unlike *Berberis vulgaris*, the foliage turns in autumn to brilliant orange and scarlet.

Berberis emarginata is a Siberian species, and one of the latest to flower in the collection. It has lanceolate-obovate, ciliately serrate leaves, and racemes of pale flowers. It is worth general cultivation for the beauty of its autumn foliage, which far exceeds that of any of the Barberries here in the brilliancy of its coloring. There is a very distinct variety of the common Barberry in the collection from Afghanistan, with stout erect branches, and spathulate leaves four or five inches long, borne on long, slender petioles; and another from Hakodate, in Japan, with bright coriaceous leaves, and pale flowers in semi-erect racemes.

Berberis umbellata, a native of the Himalayas, is a very distinct late blooming species, quite hardy here, and of no little ornamental value. The long, graceful, sparingly leaved branches are bright red, as are the slender three-parted spines, slender peduncles and pedicels. The peduncles are erect, three inches long or more and twice the length of the obovate-oblong, entire or slightly toothed, mucronate leaves, which are dark-green above and pale on the lower side; they bear near their summit a racemose umbel of long-pediceled, large, pale yellow flowers. The upright, umbellate inflorescence is quite unlike that of any other Barberry in the collection. *Berberis Cretica* is still later in bloom. It is a species from Asia Minor and quite hardy here. The drooping racemes of pale yellow flowers are rather shorter than the oval, entire or somewhat serrated leaves. It has stout, erect stems, three or four feet high, armed with short three or five branched spines, and soon forms a dense compact mass of handsome, dark-green foliage. It is well worth general cultivation.

Berberis concinna, a beautiful and very distinct little species, is also in flower. It was discovered many years ago in the Lachen Valley of the Sikkim-Himalaya, at an elevation of 12,000 to 13,000 feet, by Sir Joseph Hooker, who introduced it into cultivation, and who published a description and figure (*t.* 4744) of it in the *Botanical Magazine*. It does not, however, seem very well known in gardens, and was not included by Lavalée in the catalogue of the plants in the *Arboretum Segretzianum*, or by Mr. Nicholson in his excellent "*Dictionary of Gardening*." *Berberis concinna* is a small, low bush, with erect or spreading bright red branches, one or two feet high, armed with

slender three-parted spines, and covered with small, spinulose-toothed leaves, one-half to three-quarters of an inch long, dark glossy green on the upper side, snowy-white and glaucous below. The pedicels are longer than the leaves, drooping, solitary and one-flowered. The flowers are globose, pendant and deep yellow in color. The fruit, which is described as large, oblong and bright scarlet, has not been produced here. *Berberis concinna* appears to be perfectly hardy here, a fact which would seem to indicate that many of the plants of the high Himalaya region may, with proper precautions in the way of protecting young specimens until they are fully established, be made to contribute to the beauty and interest of American gardens. This little Barberry is certainly a gem among dwarf flowering shrubs, and for the beauty of its foliage alone it should find a place in every rock-garden or on the borders of every shrubbery.

One of the most distinct and desirable of exotic Thorns is a north China and Magnolia species, *Cratægus pinnatifida*, common in the neighborhood of Pekin and often cultivated by the Chinese. It is a variable plant, especially in the size and color of the fruit and in the character and amount of the pubescence on the leaves and young shoots. Here it is a small bushy tree, with dark green, shining, deeply cut and serrate, oval leaves, two to three inches long by half as much wide, borne on long, slender petioles. They are slightly rufous-hairy on the under side along the mid-rib and on the long slender pedicles of the large flowers. This species is handsome at this season, when the pure white flowers make a beautiful contrast with the rich shining foliage; but it is even more showy in autumn when it is covered with its large, scarlet fruit. This Asiatic Thorn is perfectly hardy here, and like all the north China plants which have been tried in the Arboretum, it seems admirably suited to the climate of the Northern States.

Caragana spinosa is a slender shrub, a native of Siberia, with handsome, yellow, pea-shaped flowers, and long, flexible, graceful branches, upon which the adult petioles, developed into long, strong spines, are persistent. The leaves with two to four pairs of linear, glabrous leaflets, and spiny stipules, are small, pale green and rather inconspicuous. This is a very hardy plant, recommended as a good subject to use in making dwarf impenetrable hedges, a purpose for which its long branches and long, stout thorns seem to well adapt it.

Caragana pygmæa and a variety with pendulous branches known as *C. pygmæa gracilis* are pretty little shrubs, one or two feet high, with slender spiny branches covered with small leaves composed of two pairs of linear, glabrous leaflets approximating near the end of the short petiole, and handsome large solitary yellow flowers. *C. pygmæa* is a native of Siberia and has long been known in gardens, although rarely seen in those of this country. It is perfectly hardy.

Styrax Americana is one of the most graceful of North American shrubs, and when the slender branches are covered with its drooping, pure white, bell-shaped flowers, borne in slender axillary racemes, few plants will compare with it in delicate beauty. It is rarely cultivated, however, and little known in gardens. Although a southern plant, not being found growing naturally north of Virginia, it is quite hardy here and blooms freely every year. It is a common plant along the margins of swamps and in low ground, where it reaches a height of from four to eight feet.

Attention has been called in earlier issues of these notes to the value of *Hudsonia ericoides* as a dwarf rock-garden plant. The second of our northern species, *H. tomentosa*, is equally attractive in the garden. It is a dwarf, hoary plant, only a few inches high, with narrow leaves, closely pressed and imbricated on the stems, very common on the sea-shore of the New England and Middle States and on the shores of the Great Lakes. Every morning during the blooming period of two or three weeks the plant is covered with a sheet of golden-yellow flowers, from which the petals fall by two o'clock in the afternoon, fresh flowers opening each day. This plant, like the other species, requires some care before it is thoroughly established in the garden, but once established, it will spread rapidly, and soon make a broad, handsome carpet.

Stephanandra (from two Greek words signifying crown and male, in allusion to the disposition of the stamens) is a genus of two or three Japanese shrubs, with the general habit and appearance of Spiræa, to which they are closely related. *S. flexuosa*, introduced a few years ago by the Messrs. Veitch, is the only species in cultivation. It has slender, flexuous branches, which here attain a height of three or four feet, with incised or lobed, cordate, ovate leaves, often colored with purple, and compound racemes of small white flowers. This is a graceful and handsome shrub, which is not very hardy, however, here, even when carefully covered, and the stems are often killed back to the ground, but grow up again vigorously. It is now flowering on such stems as were not killed during the winter.

The Stagger-Bush (*Andromeda Mariana*), a native shrub, found along the Atlantic seaboard south of Rhode Island, in low, sandy, wet situations, and very common and covering extensive tracts in some parts of Long Island, is now in flower. It is one of the handsomest of the Andromedas. It attains a height of two to four feet, and has deciduous, rather coriaceous, and shining oval leaves, and large, pure white, bell-shaped, nodding flowers, in clusters, from axillary buds, crowded on the naked branches of the preceding year. The foliage of this plant is popularly supposed to poison browsing animals. It is easily cultivated, thriving best in deep loam mixed with peat, and is perfectly hardy. Its near ally, *Leucothoë racemosa*, a common plant, found near the coast in damp thickets from Massachusetts far south, is also in flower. Less showy than the last-named species, it makes in cultivation a neat, compact shrub, with erect, rather rigid branches, covered with oval-lanceolate, bright shining leaves, and erect racemes of small, cylindrical, pure white flowers. It will flourish in peaty loam, and grows and spreads rapidly.

The great Flame-colored Azalea (*Rhododendron calendulaceum*) is in flower, rather later than most of the garden hybrids, in which its blood is mingled, and which do not surpass it in the splendor of its orange and flame-colored, odorless flowers. It is a common shrub in the Alleghany forests from Pennsylvania southward, where it often grows in great masses, lighting up, at this season of the year, the lower slopes of the mountains with sheets of flame. It is quite hardy in cultivation here. No North American plant surpasses it in brilliancy of bloom, and few are better worth a conspicuous and permanent place in the garden where the soil is suited to its wants. Limestone is fatal to it, as it is to all Rhododendrons.

Rhododendron punctatum, the smallest of the species of evergreen Rhododendrons, which are found in the Alleghany Mountains, is in bloom. It is a graceful shrub, with recurved or spreading branches and narrow leaves four or five inches long, covered, as is the whole plant, with scurfy, resinous scales. The rose-colored flowers, nearly an inch long, in lax, few-flowered clusters, are developed later than the shoots of the season, among which they are almost hidden. This is, therefore, a much less showy plant when in bloom than the hybrids, or varieties of *R. Catawbiense*, in which the new shoots from the base of the terminal flower-bud are not developed until after the flowers have expanded. It will never, therefore, be a very popular plant in gardens.

The Alpine Rose (*Rhododendron ferrugineum*), a dwarf species, rarely a foot high, from the high mountains of Europe, with minute, dark green, shining, evergreen leaves, thickly beset on the lower side with ferrugineous dots and beautiful bright scarlet flowers, is in bloom. This is a hardy plant, well suited to find a conspicuous place in the rock-garden, and, from its many associations, one of the most interesting of the European shrubs. A good covering of Pine branches in winter will protect the foliage from burning, and insure better and more abundant flowers.

Æthionema coridifolium is a pretty little plant from Asia Minor, which does not attain a height of more than six or seven inches, and with only the lower part of the stems really woody. It has minute, pale, glaucous, crowded leaves, and terminal, crowded racemes of bright, rosy, lilac flowers. It is very hardy and an excellent rock-garden plant. *Æthionema* (from two Greek words signifying scorch and filament) is a genus of the Mustard Family (*Cruciferæ*), distinguished by its winged and toothed stamens. The other species, of which there are two or three, are annuals and perennials.

Lonicera oblongifolia is one of the dwarf Bush Honeysuckles of the northern United States, which is worth a place in the garden. It has slender, upright branches, four or five feet high, oblong leaves, and rather large pale yellow flowers on long, slender peduncles, the corolla deeply two-lipped and fully half an inch long. It is found in cold, deep bogs from northern New York to Wisconsin and far northward. It takes kindly to cultivation here, however, and thrives in ordinary garden soil.

Spiræa corymbosa is a dwarf species of the Alleghany Mountains, found from Pennsylvania to Virginia and Kentucky. It grows to a height of one or two feet, and has pale, oval leaves, cut-toothed towards the apex, and large, handsome, terminal, compound corymbs of white flowers, which are now just expanding.

Jamesia is a genus of the Saxifrage Family, which commemorates the labors of Dr. Edwin James, who, when surgeon and

botanist to Long's Rocky Mountain Expedition in 1822, discovered in the mountains of what is now Colorado, the only species—*J. Americana*. It is a perfectly hardy shrub, with slender, erect stems, two or three feet high, the young branches, as well as the peduncles and calyx, clothed with soft hairs. It has small, opposite, pale, serrate leaves, canescent on the lower side, and few-flowered, axillary and terminal cymes of pure white flowers, nearly a third of an inch across when expanded. Although not very showy, this is a good subject for a rock-garden or the margins of a shrubbery.

June 20th. *J.*

The Forest.

The Forest Vegetation of North Mexico.—VII.

TWO miles beyond Cusihuiriachic our road escapes from the difficulties of the cañon and mounts to the open plain at an elevation of 6,700 feet. Whenever on our drive from this point to the Sierra Madre we pass low ranges, or the bluffs of dry ravines, or of watered valleys, we find their slopes covered with Oaks, the species *Quercus grisea* (*Q. Emoryi* being left behind at this elevation), and, scattered amongst these, perhaps, a few Pine trees, commonly *Pinus Chihuahuana*, more rarely *P. macrophylla*, also. The Papigochic River, as the upper Yaqui is called, flows northward along the eastern base of the Cordilleras for a hundred miles, receiving the numerous streams that issue from their cañons, until a little below the town of Temosochic it turns abruptly to the west, cuts a gorge through the mountains, which has never yet been explored by man, and in a distance of about fifty miles to the plains of Sonora falls not less than 4,000 feet. As we follow its course to the ford near Tonachic ranch, coming up its eastern bank from the old City of Guerrero, we notice on the mountain-sides opposite us striking evidence of the severity of the drought, which prevailed over the plateau during the first half of the present year, in broad belts of dead Pines, which still hold their brown foliage. Our Mexican friends assure us that there was scarcely any snow on the mountains last winter, and that the little lakes of the plains, brimful of water as we now see them, were for months dried to the bottom. Coming to the ford we find on the low rocky hills and bluffs of the eastern bank both *Pinus Chihuahuana* and *P. mycrophylla*, equally numerous with the Oaks; and above the bluffs of the western side on the edge of the plain stand the largest specimens of *Pinus Chihuahuana* that I ever saw, magnificent trees three or more feet in diameter and sixty feet in height. In this situation their roots find a deeper and more fertile soil than usual, yet having the drainage which they require.

Beyond the river and these wooded bluffs a few more miles of treeless plain, interesting, however, with its waving growth of grass in numerous species, and we enter an open forest of *Pinus mycrophylla*, whose elevation is 7,000 feet, and whose level floor is hidden, not with shrubbery, but with grasses and other herbaceous plants. A little within the forest, at the abandoned site of a sawmill, our wagon road comes to an end, and there, beside a clear stream which flows past the base of the first mountain bench, we rear our tent, turn loose our mules to revel for weeks amidst the luxuries and forage of the neighborhood, and ourselves proceed to explore the abundant and strange vegetation by which we find ourselves surrounded.

We see the mountain-sides everywhere deeply furrowed with cañons, some of which are walled high with rock, through all of which, now that the rainy season is passing, tumble noisy torrents. Through one of these cañons —one a few miles south of our camp—the *Arroyo Ancho*, or Broad Cañon, whose stream has cut quite through this outer range and drains valleys of the interior, leads a mule trail to Yoquivo and the villages and mining camps beyond, a lone mountain trail, seventy-five miles it may be, without a human habitation. Each divide between cañons leads, by an exceedingly irregular course, perhaps, yet with unerring certainty, up to the summits five miles distant.

Climbing by one of these ridges to the highest ledge which frowns over our valley, the altitude of which, as indicated by an aneroid, is 9,875 feet, we scan with delight the plains and the jagged mountain chains, over which we have come, the latter appearing blue through the faint haze with their thin mantle of forests, evergreen Oaks and Pines, the former dotted frequently with gleaming lakes, and traced by streams whose course is made more plain by straggling lines of trees, Cottonwoods in the lower valleys and Pines and Oaks on the higher portions—a pleasant land, which might be a fruitful and a prosperous one but for the lack of rain sustained throughout the year; a region now held by a meagre population, who cannot safely plant their homes except along the rivers, and who maintain a precarious existence by growing, by the most primitive methods, after the deluge of midsummer rains, crops of Corn and Beans on their nearer lands and tending a few herds on the wide areas beyond.

Looking north and west and south we behold, however, only a sea of mountains, none appearing loftier than the one upon which we stand, everywhere covered with forests, noble forests of Pine crowning broad summits, dense growths of Pine and Spruce and Oak shading the northern slopes and darkening the valleys and cañons, and even the dry ridges and sunnier slopes hidden under close growths of the more dwarf species of Pine, Oak, Juniper and Arbutus. This is the great forest of Mexico, a belt 50 to 100 miles in width and 800 miles in length, the chief source in the future development of this country of its lumber supply, then to be brought out by railroad trains, not, as we saw all along the road by which we traveled, on the backs of donkeys and mules, or, at best, in the ponderous carts of the country, with wheels hewn from trunks of trees, and drawn invariably by three pairs of oxen. *C. G. Pringle.*

Correspondence.

To the Editor of GARDEN AND FOREST:

Sir.—Not long ago I visited a green-house where a wonderful display is made of old and common plants all developed into well grown specimens. The high back wall was covered with the galvanized wire netting now so cheap and so well adapted for training plants; it was well covered with plants not commonly considered as climbers. The first in the row was a specimen of the old Oak Leaf Geranium, *Pelargonium quercifolium*, which was six feet high and nearly as many broad, though grown in an eight-inch pot. It was completely covered with clusters of bright purple flowers, and was really a revelation of beauty to one who had not thought of the ornamental capabilities of this plant. Then came a specimen of *Abutilon vexillarium* (*Mesopotamicum*) covering about fifty square feet of the trellis, and hung with countless red and yellow flowers. I learned, for the first time, what an admirable plant it is when well grown. *Asparagus tenuissimus*, in another place, wandered uncut, with shoots ten to twelve feet long, adding a feathery fringe to the Abutilon. Then came *Jasminium grandiflorum*, filling the air with its odor, and finally, at the end of the table, the much neglected climber, *Lophospermum scandens*, covering a large space with the cheerful green of its foliage and its wealth of rosy-purple flowers. On the centre table were Fancy Pelargoniums and Fuchsias, such as were seen at horticultural exhibitions before the Ferns and tropical plants absorbed all the space. The Pelargoniums from last fall's cuttings, and in ten-inch pots, were masses of bloom, four feet high, and so sturdily grown that no cluster of stakes was needed to support them, while the Fuchsias, from January cuttings, were pyramids five feet high and loaded with flowers. The only plant in the way of a novelty was a large specimen of the double white Petunia, Mrs. Dawson Coleman, which promises to be a great plant for florists' use in summer. In another house was a collection of Begonias of various sorts, all given space for full growth. Here were a *Begonia coccinnea*, six feet high and four feet in diameter, covered with flowers from bottom

to top, *B. nitida alba*, nearly as large, with flower clusters as large as a man's hat, and *B. Rex* in many varieties, in eight-inch pots, with such a massive growth that I could not clasp hands around them. In this house the wire trellis on the back wall was covered with Smilax, which filled the air with the delicate odor of its flowers. A fine plant of *Clerodendron Thomsonæ* in a border at one end is intended to take the place of the Smilax, and an immense *Bougainvillea glabra* grows enormously, but has not yet bloomed well. The intention is to root-prune it and build a wall across the border, so as to confine its roots and insure its being kept dry in winter. If this is done it will probably next spring make an object worth going a journey to see.

I will not take space to write of the Allamanda, *Bignonia venusta* and other old-fashioned plants that were flourishing in roomy quarters, but it occurred to me that the skill of the true gardener was shown as effectively in producing noble specimens of common, though beautiful, plants, as it would have been in coddling a vast and crowded collection of diminutive novelties.

Albemarle County, Virginia. *W. F. M.*

To the Editor of GARDEN AND FOREST:

Sir.—To the "Notes from the Arnold Arboretum," in GARDEN AND FOREST for May 30th and June 6th, permit me to add a few comments from a Western standpoint.

While the description of the fruit of *Ribes alpinum* as "large, handsome, scarlet, insipid" will apply perfectly to the wild mountain form, it does not describe the cultivated varieties found in gardens throughout eastern Europe. At the agricultural college near Moscow, Mr. Gibb and I found large plantations of Dwarf Juneberry, and adjoining them quite as large plantations of red and black varieties of *Ribes alpinum*. The fruit of the Currants was nearly as large as that of the Juneberry, and we thought superior to it in sprightliness and flavor. We have distributed some of the cultivated varieties found at Moscow, Orel and Varonesh, Russia, and shall expect reports in the near future.

Ribes aureum makes a handsome and more fragrant shrub at the West than in the moister air of New England, but we have a variety which is stronger in growth, handsomer in foliage and flower, and, we think, better in quality of fruit than the species. This we received from Dr. Fischer, of Varonesh, as *Ribes palmatum*.

Bush Honeysuckles are, as a rule, at home in our climate. *Lonicera chrysantha*, *L. Xylosteum*, *L. nigra*, *L. Ruprectiana* and the named varieties of *L. Tartarica*, such as splendens speciosa, grandiflora rubra, grandiflora alba, bicolor, luteo-virginalis, etc., are specially fine in habit, and flower on our grounds. It may be of interest to note that some of the supposed varieties of the common Tartarian Honeysuckle seem to be derived from a fixed and distinct type of the species found in east Europe. To illustrate: We received from Professor Sargent in 1880 a packet of seed of L. splendens. From these we have grown over one hundred seedlings. While they vary in color of flowers from pure white to all shades of pink, the habit of growth, expression and shape and color of the leaves closely resemble the L. splendens. This, joined with the fact that we met with varieties like the splendens in habit of bush and size and color of the flowers, will favor our idea that all of our named varieties of the Tartarian Honeysuckle are not derived from the same primitive forms.

The primitive form of the flowering Almond of Siberia flowers with us profusely very early in the spring, and the blossoms seem to endure a temperature several degrees below the freezing point. Last spring they were loaded with beautiful pink blossoms in March when water near them was covered in the morning with ice half an inch thick, yet the flowers showed no trace of injury, and the bushes were well loaded with Almonds, from which we now have growing plants. We also have a pure white variety of the Siberian Almond that is almost perfectly double. These are valuable in the parts of the West where the common garden varieties do not stand the winters. *J. L. Budd.*

To the Editor of GARDEN AND FOREST:

Sir.—The discussion of the alleged poisonous properties of the Ailanthus in a recent number of GARDEN AND FOREST calls to mind a circumstance that fell under my observation in northern New York. It was decided to remove an Ailanthus which stood near a dwelling, on account of the popular prejudice against the tree, and for the same reason it was found difficult to find a man who would undertake the job. Finally one was engaged and he spent a day in cutting the tree down, commencing among the branches. At night his hands and face began to swell, his eyes became closed, and for several days he was confined to his house suffering severely.

The sap of the Ailanthus is probably as poisonous as that of the poison Oak and poison Elder, which belong to the same alliance. If this is so, it is reasonable to suppose that the pollen of all three affects certain persons in like manner. I knew a person to remove from a certain locality where *Rhus venenata* was abundant, on the advice of a physician, because at the season of its blooming he was always attacked with violent symptoms of Rhus poisoning. In Virginia and neighboring States the Ailanthus runs wild in old fields.

Jacksonville, Fla., June 11th, 1888. *A. H. Curtiss.*

Periodical Literature.

In *Longman's Magazine* for June will be found an article by Mr. Frederick Boyle which is in some sort a continuation of the one on Orchids to which we called our readers' attention some weeks ago as having been published in the same periodical. This time Mr. Boyle's title is "An Orchid Farm," and the place to which it refers is the establishment of the Messrs. Sander at St. Albans not far from London—the largest and most famous establishment for the importing, growing and selling of Orchids in the world. The author modestly confesses that no words can give a full idea of it, much less a distinct picture of the treasures which it contains. Yet his words certainly give us a clear general idea of the extent of the place and of the business there transacted, and a brilliant if necessarily vague sketch of the surprising charms of its contents. These, in so far as beauty and variety go, will be easily imagined by all who are familiar with Orchids, yet the masses in which they are shown are almost inconceivable. When we read of twenty-four successive houses, all of them at least 180 feet in length and the narrowest 32 feet in breadth, some given over to the sorting of new arrivals and the early stages of cultivation, but most of them filled with growing plants, we begin to realize the exactness of the word "farm" as Mr. Boyle applies it. And when he speaks of one house devoted almost entirely to *Odontoglossum crispum* in which twenty-two thousand pots have been counted, and of another 300 feet in length which he saw filled full of Cattleyas and allied genera all in bloom, we begin to see why he hesitated over an attempt at description. Many such facts as these he gives us, together with startling computations as to the value of the contents of this or that house and the magnitude of the orders constantly received and immediately filled. He also describes how the immense consignments of plants from all quarters of the globe are daily received and dealt with—amid manifold dangers from lurking scorpions, centipedes and poisonous ants—and traces some of the processes of cultivation. And then he notes some of the more remarkable individual plants which the establishment contains. A *Lælia alba*, for example, which he saw, bore 211 blossoms, and a basket of *Lælia anceps* measured three feet across. A mass of *Catasetum* was lying ready to bloom just as it had been brought from a Guatemalan forest—four feet by three in diameter and eighteen inches thick; and a *Cattleya Mossiæ* measured, in solid bulk, not including its leaves, five feet in height and four feet in thickness. This, a single plant and not a group, is said to be the largest Orchid ever brought to Europe. It grew on a tall tree near the hut of an Indian, whose private property it was and who long refused all offers to purchase it, but finally succumbed to the attractions of a beautiful rifle added to those of a large sum of money. Following his Orchids into their native haunts, Mr. Boyle speaks of the regard in which they are held by the South American Indians and of the way in which they garland their lonely forest churches with thickets of bloom, any one of which would be a treasure to the European amateur. But it is impossible here even to hint at all the entertaining facts which Mr. Boyle has interwoven with his account of the famous "farm" at St. Albans.

After all, however, much as we may admire Orchids, there are other things which more nearly touch our hearts, and a perusal of such an article as Mr. Boyle's affects us somewhat as does a long stay in the hot-houses where they grow—we are glad to feel a breath of fresh air again, and rest our eyes on the simple greens of the temperate zone. Fortunately *Longman's Magazine* affords the reader a chance to do this, for following upon the Orchid article we find one called "In the Woodlands" by the Rev. M. G. Watkins. It has not the poetical flavor of many similar articles which appear from month to month in our own magazines, but is very charming none the less in its glances at the woods and flowers of England; and here and there it gives proof of a more acute perception of the artistic properties of trees than the

ordinary lover of nature often reveals. For this reason it may be read with profit as well as with pleasure, and we may echo the wish for America which the author earnestly expresses for England—that a School of Forestry may soon be established. In speaking of the advisability of beautifying country roads, and not only city streets, by the systematic planting of trees, he says that "in some parts of North America every citizen is compelled to plant a certain number of trees—say six or a dozen—at his marriage or coming of age." We trust this may be true, but should like to be told of the exact locality in which the rule is in force, especially as the words "coming of age" strongly suggest that some English mind has invented a friendly fiction to our credit.

Notes.

Ripe Tokay and Muscatel Grapes were in the Yuma (California) markets as early as June 13th.

According to the *Santa Barbara Herald*, the crop of Pampas plumes will be heavy, and already buyers are offering to take them at good prices. Not infrequently the profit from an acre has reached the sum of $1,000.

Cherry trees were sprayed with arsenites at the Ohio Experiment Station soon after the blossoms fell this spring, and the result was that very little wormy fruit appeared, while on check trees, where the spraying was omitted, the curculio did much damage. Analysis of fruit a week after spraying showed no trace of poison. Spraying with a solution of lime was also tried, but it proved much less effective.

After the funeral of the Emperor William, in Berlin, the wreaths and other floral devices which had been sent from all parts of the country were exhibited in one of the rooms of the Hohenzollern Museum. They numbered more than 2,000, and consisted not only of fresh flowers, bnt also of Palm and Laurel garlands, of arrangements of Immortelles and Edelweiss, of gilded Oak leaves, and of foilage simulated in gilded or silvered metal.

From the discussions at the late convention of nurserymen in Detroit it was evident that the majority of members did not approve of reducing the postage on "plants," and objected to adding this word to "seeds, cuttings, bulbs and roots," in the bill now before Congress. The argument was that sending small plants through the mail interfered with the prices that must be asked by agents, and a large proportion of the business of nurserymen was transacted through agents.

Professor Budd is experimenting on a large scale with seedlings from the Russian Apples which he has imported. A series of crosses between the Russian Apples and certain American varieties have been made and the crossed seedlings are now growing. Many pure seedlings from the Russian Winter Apples are also growing. The hope is that varieties may be secured which will endure the trying summers and winters of our north-west region, and, at the same time, have the good quality of some of the more tender kinds.

Both branches of the Philadelphia City Council have voted to include the historic Bartram Garden among the Small Parks to be established under the ordinance of which mention has been already made in these columns. This means that the land cannot now be sold for any other purpose and that it may be taken by the city whenever it may choose to appoint a jury to assess damages, or that it may be taken by any responsible body of citizens who ask the courts to name a jury for this purpose and agree to pay for the ground as the jury may estimate its worth, or as may be arranged with the owners without a jury. In case an association of citizens take the matter in hand the city would without doubt respect the wishes of the donors as to how the garden shall be cared for. If the city pays for it the garden will remain at the tender mercies of city officials, who cannot always be trusted to treat such a possession with either the reverence or the good taste which its importance demands. Still, that so much has been accomplished is a matter for gratitude, and thanks are due in an especial manner to Councilman Thomas Meehan, the Chairman of the Sub-committee on Small Parks, for his labors in this behalf.

The statement which has been going the rounds of the papers that the old Endicott Pear Tree, planted by Governor John Endicott about 1630 on his farm in Danvers, Massachusetts, was dead, has no foundation in fact. This venerable tree is still alive and in a fairly vigorous condition. It now resembles in habit a low, wide-spreading Apple tree. A few years ago the trunk was split by a storm, which caused it to lean over the iron fence which protects the tree from cattle; it then sent up from below the split a strong, vigorous shoot, which gives it its present bushy appearance. This tree was never grafted, as suckers from it produce the same inferior fruit as the main branches. Another famous Pear tree, known in Salem as the "Orange Pear," and supposed to have been planted about 1640, is still alive and flourishing in a garden in that town. The soil and climate of Essex County seem favorable to longevity in Pear trees. The "Cogswell Pear Tree," in the Town of Essex, is more than two centuries and a half old. John Cogswell brought the seed which produced this tree from England in 1635. This tree, which stands in the open field back of Mr. Edward Lee's house, near the foundations of John Cogswell's first house, still bears fruit, which is used for preserving.

Retail Flower Markets.

NEW YORK, *July 6th.*

Roses continue scarce, and are of poor quality. So rare indeed are all good flowers that all choice bouquets are set off with Orchids. Paul Neyrons are best of the Hybrids. American Beauties are very small and one-sided. Selected Hybrids are almost too poor to use, and cost $3 and $4 a dozen. Maréchal Neils and General Jacqueminots arrived in small lots from Newport. They cost $1.50 a dozen. La France Roses are scarce and small. They cost $1 and $1.25 a dozen. Lily-of-the-Valley sells for winter prices—$1.50 a dozen. There is little of it unless to order. *Lilium longiflorum* and Callas cost $3 a dozen. Gladioluses, $1.50; Pansies, 25 cts.; Buttercups, 35 cts., and Daisies from 15 to 20 cts. Pea Blossoms cost 25 cts. for a small cluster. Mignonette is of bad quality and in light demand at 25 cts. a dozen. Peonies are out of bloom. Florists receive plenty of steamer orders, but really have not the flowers to fill them. For the dinner given at Delmonico's to the Duke and Duchess of Marlborough the favors ordered were not supplied, because it was impossible to get any Roses. Tamarisk foliage is used with good effect in tall designs.

PHILADELPHIA, *July 6th.*

Good flowers, and especially good Roses, were never less abundant than they now are. True there is little demand for flowers at this dead season. The "Commencements" are all over, and most of the flower-buyers are out of town. During recent years flowers have been used with less profusion at school commencements, but this year a decided improvement was noticeable in the demand, and certainly there are few occasions where they can be more appropriately used. Sweet Peas are still asked for, and are in fair supply. Zinnias are becoming more plentiful, and are catching the public fancy, owing to the improvements in them within the past few years. The tints and shadings in some of the flowers, though over showy perhaps, are really very beautiful and distinct. Rudbeckia may be obtained in limited quantities from the fields. It is figured in a recent number of *The Art Interchange*, and labeled "The Black-eyed Susan!" without any indications of its botanical name. It is frequently called the "Cone Flower," and sometimes the "Buckeye Daisy." Carnations, excepting white varieties, are fairly plentiful, and sell at 25 cts. a dozen. Sweet Peas, Zinnias and Rudbeckia also sell at same price. There are some few Mrs. John Laing Roses to be had at $1.50 a dozen. Meteors, though not at all plentiful, cost the same. La France, Mermets and the Bride cost $1 to $1.50. Perles and Sunsets, 75 cts. to $1. The demand for *Asparagus tenuissimus* and Smilax has fallen off considerably, though there is very little change in the price. A few flowers of that pretty wild pink Orchid, *Calopogan pulchellum*, are brought from New Jersey, and sell at 50 cts. a dozen. The orange-colored *Polygala lutea*, from the same State, are offered at 25 cts. a dozen. The two latter flowers have not been noticed in this city before. They will remain popular as long as they are in season.

BOSTON, *July 6th.*

The month of July is the dullest in the year for the florist. School graduations and social gatherings, which make a demand for cut flowers, are all finished; the fashionable season at the seaside resorts, which sometimes gives a little life to the business in midsummer, has not yet begun, and were it not for the "steamer days" and an occasional funeral, florists might as well lock up their shops. The season that has just closed has not been remarkable in any way; nothing striking or decidedly original has been introduced in the way of floral designs, and the only characteristic thing to say of the season is that it began late, and that the average price of cut flowers was considerably lower than ever before. Roses in midwinter were not up to the average either in quality or quantity, but otherwise the condition of the trade has been generally satisfactory. Among the best selling varieties at present, and in fact all through the season, are the Grace Wilder Carnations. It is a remarkable hold which this Carnation has taken of flower-lovers and buyers. The pink Pond Lily seems to be as popular as ever as a summer favorite. Gloxinias, Cornflowers and the golden Sweet Sultan are all among the popular flowers of this month. Out-door Roses are still plenty and cheap, the street peddlers handling the most of them. A few Sweet Peas and Asters are to be seen in the florists' windows. There are no settled prices that are worth quoting. All is grist that comes to the mill just now, and no reasonable offer is refused.